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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification 6 :</b> <b>C07K 14/47, 16/18, G01N 33/68,</b> <b>33/564 // C12P 21/00</b>	<b>A3</b>	<b>(11) International Publication Number:</b> <b>WO 98/22503</b>  <b>(43) International Publication Date:</b> 28 May 1998 (28.05.98)
<b>(21) International Application Number:</b> PCT/NL97/00624  <b>(22) International Filing Date:</b> 14 November 1997 (14.11.97)  <b>(30) Priority Data:</b> 1004539 15 November 1996 (15.11.96) NL  <b>(71) Applicants (for all designated States except US):</b> STICHTING SCHEIKUNDIG ONDERZOEK NEDERLAND [NL/NL]; Laan van Nieuw Oost-Indië 131, NL-2593 BM Den Haag (NL). STICHTING VOOR DE TECHNISCHE WETENSCHAPPEN [NL/NL]; Raadstede 15/19, NL-3431 HA Nieuwegein (NL).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> VAN VENROOIJ, Waltherus, Jacobus, Wilhelmus [NL/NL]; Eleonoraweg 16, NL-6523 MZ Nijmegen (NL). SCHELLEKENS, Gerardus, Antonius [NL/NL]; Zwanenveld 37-03, NL-6538 XV Nijmegen (NL). RAATS, Jozef, Maria, Hendrik [NL/NL]; Van Diemerbroeckstraat 65, NL-6512 BA Nijmegen (NL). HOET, René, Michael, Antonius [NL/NL]; Weezenhof 35 - 40, NL-6536 HB Nijmegen (NL).		<b>(74) Agent:</b> ALTENBURG, Bernardus, Stephanus, Franciscus; Octrooibureau Los en Stigter B.V., Weteringschans 96, NL-1017 XS Amsterdam (NL).  <b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> <i>In English translation (filed in Dutch).</i> <i>With an indication in relation to a deposited microorganism furnished under Rule 13<sup>bis</sup> separately from the description.</i> <i>Date of receipt by the International Bureau:</i> 5 December 1997 (05.12.97)  <b>(88) Date of publication of the international search report:</b> 27 August 1998 (27.08.98)
<b>(54) Title:</b> PEPTIDE DERIVED FROM AN ANTIGEN RECOGNIZED BY AUTOANTIBODIES FROM PATIENTS WITH RHEUMATOID ARTHRITIS, ANTIBODY DIRECTED AGAINST SAID PEPTIDE, A COMBINATORIAL ANTIGEN, AND A METHOD OF DETECTING AUTO-IMMUNE ANTIBODIES		
<b>(57) Abstract</b>  The invention relates to a peptide derived from an antigen recognized by autoantibodies, which peptide is reactive with autoimmune antibodies from a patient suffering from rheumatoid arthritis. The peptide according to the invention possesses a modified arginine residue. The invention also relates to antibodies against the peptide and a method of detecting autoimmune antibodies.		

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/NL 97/00624

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C07K14/47 C07K16/18 G01N33/68 G01N33/564 //C12P21/00

According to International Patent Classification(IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	<p>R. HOET ET AL.: "Antiperinuclear factor, a marker autoantibody for rheumatoid arthritis: colocalisation of the perinuclear factor and profilaggrin." ANNALS OF THE RHEUMATIC DISEASES, vol. 50, no. 9, September 1991, LONDON, GB, pages 611-618, XP002038024 see page 612, left-hand column, line 14 - line 52</p>	10-13
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☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

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International Application No

PCT/NL 97/00624

**C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	M. SEBBAG ET AL.: "The antiperinuclear factor and the so-called antikeratin antibodies are the same rheumatoid arthritis-specific autoantibodies." THE JOURNAL OF CLINICAL INVESTIGATION, vol. 95, no. 6, June 1995, NEW YORK, NY, VS, pages 2672-2679, XP002038025 see the whole document ---	10-13
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A	EP 0 511 116 A (CLONATEC S.A.) 28 October 1992 cited in the application see the whole document ---	1-15
A	S-Q. GAN ET AL.: "Organization, structure and polymorphisms of the human profilaggrin gene." BIOCHEMISTRY, vol. 29, no. 40, 9 October 1990, VS, pages 9432-9440, XP002038027 cited in the application see figures 1,2 see abstract ---	1-9
A	Y. MISAKI ET AL.: "The 56K autoantigen is identical to human annexin XI." THE JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 269, no. 6, 11 February 1994, BALTIMORE, MD, VS, pages 4240-4246, XP002038028 see the whole document ---	1-9
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PCT/NL 97/00624

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Information on patent family members

International Application No

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